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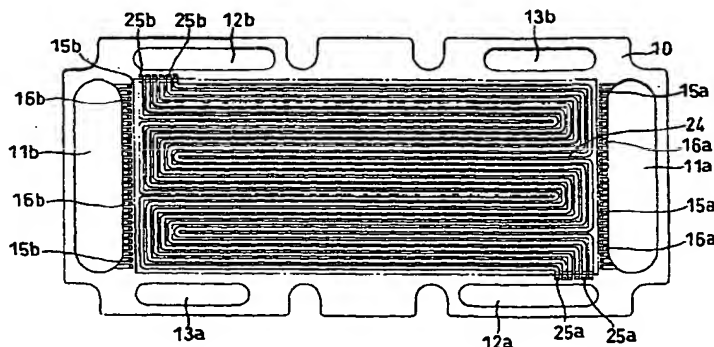
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(54) **Polymer electrolyte fuel cell stack**

(57) Disclosed is a polymer electrolyte fuel cell including improved separators that cause no mixing of a fuel gas and an oxidant gas. The polymer electrolyte fuel cell comprises a plurality of membrane electrode assemblies and a plurality of conductive separators, wherein the plurality of conductive separators comprise at least one separator (10) comprising: a fuel gas inlet-side manifold aperture (12a); a fuel gas outlet-side manifold aperture (12b); a gas flow channel (24) for fuel gas

formed on an anode-side of the separator; an inlet-side through hole (25a) and an outlet-side through hole (25b) penetrating the separator which are formed at an inlet-side end and an outlet-side end of the gas flow channel for fuel gas; and an inlet-side connection groove and an outlet-side connection groove for connecting the inlet-side and outlet-side through holes with the fuel gas inlet-side manifold aperture and the fuel gas outlet-side manifold aperture, respectively, which are formed on a cathode-side of the separator.

FIG. 3





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EUROPEAN SEARCH REPORT

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The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 8 March 2004	Examiner Standaert, F
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons</p> <p>& : member of the same patent family, corresponding document</p>			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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